

AMENDMENT

IN THE SPECIFICATION:

Page 1, amend lines 1-5 as follows:

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S30156(M)

TITLE OF THE INVENTION

Selective Metallisation of Nucleic Acids via Metal Nanoparticles Produced In Situ

FIELD OF THE INVENTION

Page 1, add line 7 as follows:

BACKGROUND OF THE INVENTION

Page 3, after line 25, add the following:

OBJECTS AND SUMMARY OF THE INVENTION

Page 7, after line 21, insert the following:

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will now be described in further detail with respect to the accompanying figures in which:

Figure 1 shows the UV-visible absorption spectra of the Pt(II)-terpyridine-DNA conjugate and the Pt-DNA composites produced according to Example 1.

Figure 2 shows an AFM image of a Pt-DNA composite produced according to Example 1 before treatment with a solution of GoldEnhance® according to Example 4.

Figure 3 shows an AFM image of a Pt-DNA composite produced according to Example 1 after treatment with a solution of GoldEnhance® according to Example 4.

Figure 4 shows an AFM image of another spot of the sample shown in Figure 3.

Figure 5 shows an AFM image of a Pt-DNA composite produced according to Example 2 before treatment with a solution of GoldEnhance® according to Example 5.

Figure 6 shows an AFM image of a Pt-DNA composite produced according to Example 2 after treatment with a solution of GoldEnhance® according to Example 6.

Figure 7 shows the most likely positions for “metalation” at the N-7 atoms of the purine nucleotides (G and A) of a nucleic acid.

Figure 8 shows several variations of metal (M) – ligand (L^1 , L^2 , and L^3 , X or Z) complexes, (the charges have been omitted for simplicity).

Figure 9 schematically shows metalation of specific bases within oligonucleotide subunits at sites that are inherently present, (the charges have been omitted for simplicity);

Figure 10 schematically shows metalation of specific bases within oligonucleotide subunits at sites that have been introduced by chemical modification; (the charges have been omitted for simplicity).

Figure 11 shows examples of substitution-inert metal (M) complexes attached to nucleic acid interacting groups of the general formula INT-CON-LIG-M(L)_n.

Figure 12 schematically shows the covalent attachment of substitution-inert metal complexes to specific bases within oligonucleotide subunits, before or after hybridization at complementary segments of longer nucleic acids; (the charges have been omitted for simplicity).

Figure 13 shows an AFM image of an unmodified non-platinated DNA after treatment with a solution of GoldEnhance®.

Figure 14 shows an AFM image of an unmodified non-platinated DNA after treatment with a solution of GoldEnhance®.

DETAILED DESCRIPTION OF THE INVENTION

Page 13, line 25, to page 15, line 4:

~~The invention will now be described in further detail with respect to the accompanying figures in which~~

~~Figure 1 shows the UV-visible absorption spectra of the Pt(II)-terpyridine DNA conjugate and the Pt-DNA composites produced according to Example 1.~~

~~Figure 2 shows an AFM image of a Pt-DNA composite produced according to Example 1 before treatment with a solution of GoldEnhance® according to Example 4.~~

~~Figure 3 shows an AFM image of a Pt-DNA composite produced according to Example 1 after treatment with a solution of GoldEnhance® according to Example 4.~~

~~Figure 4 shows an AFM image of another spot of the sample shown in Figure 3.~~

~~Figure 5 shows an AFM image of a Pt-DNA composite produced according to Example 2 before treatment with a solution of GoldEnhance® according to Example 5.~~

~~Figure 6 shows an AFM image of a Pt-DNA composite produced according to Example 2 after treatment with a solution of GoldEnhance® according to Example 6.~~

~~Figure 7 shows the most likely positions for “metalation” at the N-7 atoms of the purine nucleotides (G and A) of a nucleic acid;~~

~~Figure 8 shows several variations of metal (M)—ligand (L^1 , L^2 , and L^3 , X or Z) complexes, (the charges have been omitted for simplicity);~~

~~Figure 9 schematically shows metalation of specific bases within oligonucleotide subunits at sites that are inherently present, (the charges have been omitted for simplicity);~~

~~Figure 10 schematically shows metalation of specific bases within oligonucleotide subunits at sites that have been introduced by chemical modification; (the charges have been omitted for simplicity);~~

~~Figure 11 shows examples of substitution inert metal (M) complexes attached to nucleic acid interacting groups of the general formula INT-CON-LIG-M(L)_n;~~

~~Figure 12 schematically shows the covalent attachment of substitution inert metal complexes to specific bases within oligonucleotide subunits, before or after hybridization at complementary segments of longer nucleic acids; (the charges have been omitted for simplicity); and;~~

~~Figure 13 shows an AFM image of an unmodified non-platinated DNA after treatment with a solution of GoldEnhance®.~~

~~Figure 14 shows an AFM image of an unmodified non-platinated DNA after treatment with a solution of GoldEnhance®.~~